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Book Review: A revision of the genus *Calliteara* Butler, 1881 (Lepidoptera, Erebidae, Lymantriinae)

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http://zoobank.org/5DDD8EDD-23AA-4CE3-8546-D64DFFB1E216

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Tatyana Trofimova, Dmitry F. Shovkoon and Thomas Witt 2016: A revision of the genus *Calliteara* Butler, 1881 (Lepidoptera, Erebidae, Lymantriinae). Proceedings of the Museum Witt, Volume 3, Munich and Vilnius. 117 distribution maps, 17 colour plates, 68 plates with genitalia figures, 292 pages. ISBN: 3-978-940732-21-7. Price €78[1]

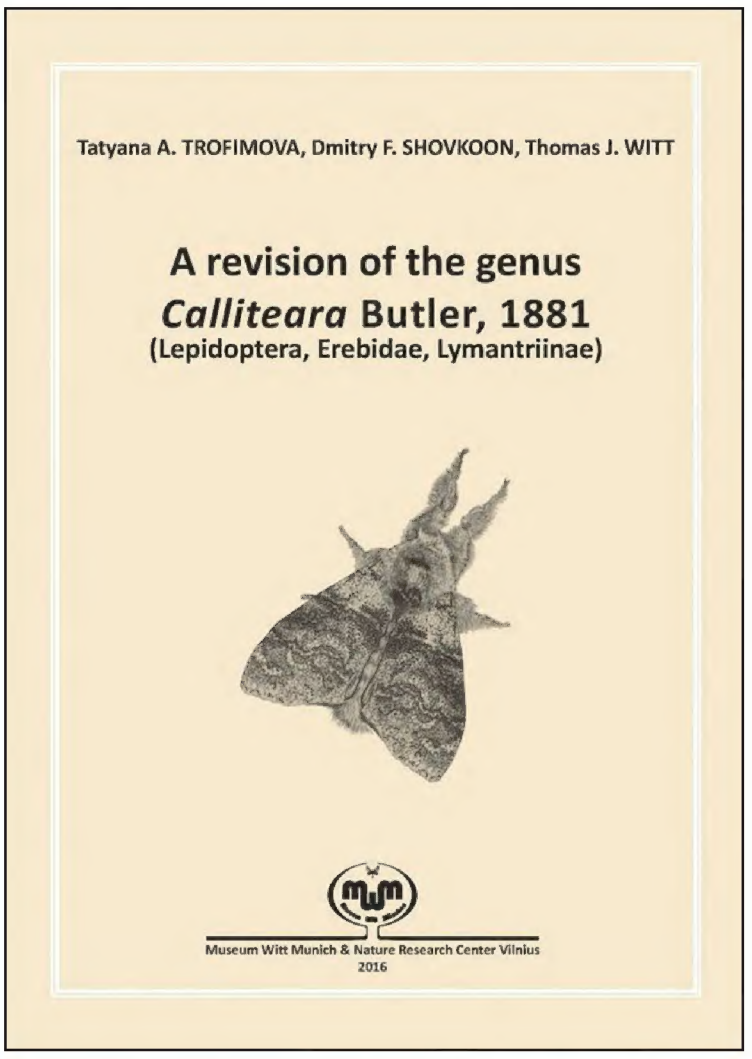
Tatyana A. TROFIMOVA, Dmitry F. SHOVKOON, Thomas J. WITT
A revision of the genus
Calliteara Butler, 1881
(Lepidoptera, Erebidae, Lymantriinae)
Museum Witt Munich & Nature Research Center Vilnius
2016

Figure 1. The cover of the book "A revision of the genus *Calliteara* Butler, 1881 (Lepidoptera, Erebidae, Lymantriinae)".

I was surprised when I first heard that a book (Fig. 1) like this would be published and even more so when I had a chance to see the first versions, with such a huge diversity of species in the revised genus. The introduction includes general characteristics of the genus, a list of newly described species, and all synonyms and combinations. Then it continues fluently into a systematic part dedicated to the general morphology of each developmental stage. The genus *Calliteara* Butler, 1881 belongs to the tribe Orgyiini and occurs across Palaearctic, Oriental, Australian, and Oceanic Regions. A list of 70 already described species was extended to number 116. The synonymization of the genus *Iropoca* Turner, 1904 and four other species is very important. Likewise, in many of the other genera of Lymantriinae, we can also find prominent sexual dimorphism in size and wing pattern as well as other more specific features. Moreover, males possess a modified 8th tergum and a unique structure of the valvae. Based on these characteristics, all described species were grouped by Holloway into seven species groups (such as the

[1] The book can be ordered online from the Museum Witt Munich website (http://www.insecta-web.org/MWM/htmls/museum_proceedlings_en.html).

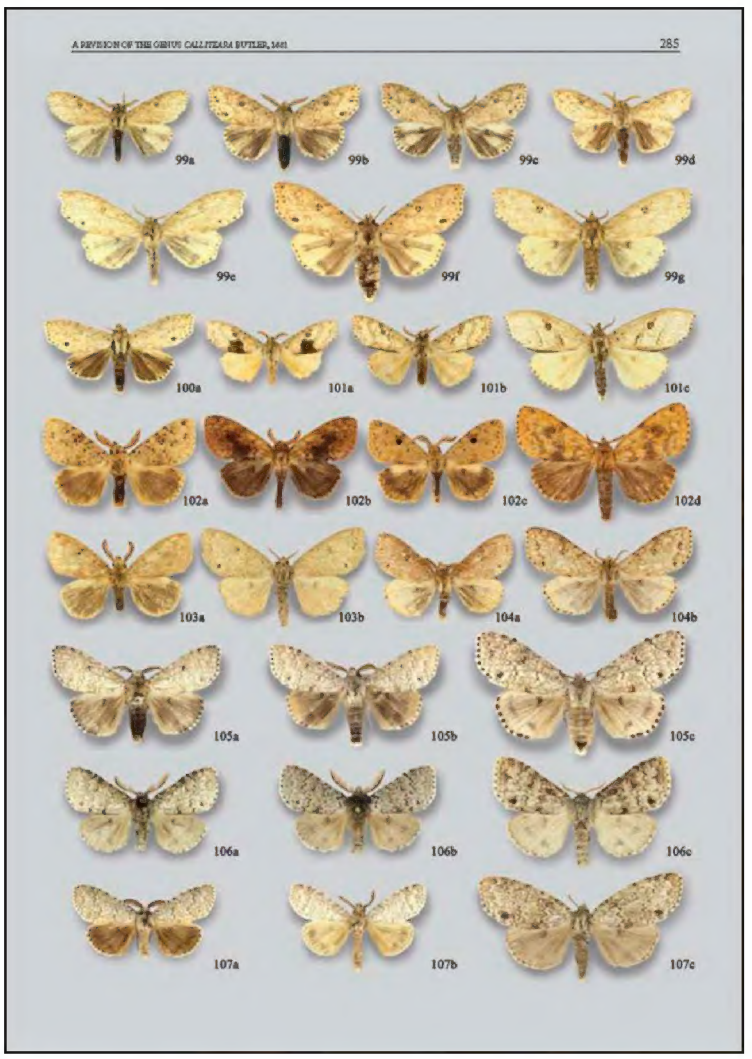

Figure 2. An example of adult habitus plate from the book (page 285, colour figures 99–107).

Calliteara pudibunda species complex). In this revision three new species groups were added. It was also very interesting (but not unexpected) to see descriptions of three new species from Vietnam and four new species from Thailand in one genus only.

The systematic part continues with review of all necessary characters used for proper identification (e.g. anatomy of the head, legs, genitalia, tymbal organs, and wing venation). The authors also barcoded 373 specimens and the results (COI sequences) were evaluated with Kimura 2-parameter (K2P) implemented in BOLD Systems and used to clear uncertainties around geographic and individual variability. Each species has original description, diagnosis, and notes about distribution displayed on maps. Many species in the checklist are also supplemented with information about their bionomy. The conclusions part is mainly dedicated to the evaluation of diversity in different regions. The title "biogeography" is not really the correct word, as there is no real biogeographic analysis based on ecological, molecular, or morphological data.

The graphical content of the book is quite impressive. Everybody will appreciate separated parts for male and female genitalia. The genitalia are shown in black and white, mostly with good contrast. I only have a problem with the complete lack of scale bars, because obviously the phallus and genitalia have been illustrated to different scales. Colour photographs of specimens (Fig. 2) could be sharper and lighter in many cases. What could be improved is the tone of the background colour, which has a negative impact on the colouration and general impression of the wings. Personally I also do not like the shadows around the wings which together with the lighter background makes the wings of many specimens darker than they really are. What I really admire is the plate with photographs of caterpillars. However, here I miss a plate with a selection of photographs of biotopes in different regions, where the species live.

This revision nicely follows up the work on the genus *Lymantria* published 12 years ago by Dr. A. Schintlmeister in Quadrifina (2004/7). It will be a key publication for working with and identification of tussocks from this genus. I hope that this book will also motivate us to continue with revisions in the Lymantriinae. I strongly recommended this book to anybody who works on biodiversity and ecology, as well as to people interested in forest and plant control.